DOCUMENT RESUME

ED 034 596 PS 002 704

AUTHOR Schwartz, Conrad
TITLE The Effects of Mothers' Presence and Previsits on Children's Emotional Reactions to Starting Nursery School.
INSTITUTION National Lab. on Early Childhood Education.; Syracuse Univ., N.Y. Syracuse Center for Research and Development in Early Childhood Education.
SPONS AGENCY Office of Education (DHEW), Washington, D.C. Div. of Educational Labs.
REPORT NO NLECE-70706-S-BC-R-23
PUB DATE Nov 69
CONTRACT OEC-3-7-70706-3118
NOTE 36p.

EDRS PRICE EDRS Price MF-$0.25 HC-$1.90
DESCRIPTORS Adjustment (to Environment), *Behavioral Science Research, *Emotional Adjustment, *Experimental Programs, Group Experience, Mothers, *Nursery Schools, Preschool Children

ABSTRACT

This study investigated the emotional effects of various treatment conditions on children starting nursery school. Subjects were 108 children, predominantly middle class, 3 1/2 to 5 years old. Treatment conditions were analyzed according to (1) previsit to school vs. no previsit, (2) mother present vs. mother absent, (3) peer group experiences vs. no experience, and (4) male vs. female. Children's emotional reactions were rated according to (1) reaction to separation from mother, (2) position and activity relative to others in the last 20 minutes of each session, (3) motility (locomotion in the environment), (4) feeling toward school, and (5) comfort in class. All emotional reactions, except motility, were mutually intercorrelated. The teachers' rating of comfort had the highest correlation with the other indices of emotional reaction. The four experimental treatment variables had no significant effect on a child by the last 20 minutes of the first session, and follow-up studies supported this finding. It is concluded that most middle class children readily adapt to a nursery school situation, regardless of treatment conditions at time of entrance. (DR)

ED034596

U. S. DEPARTMENT OF HEALTH, EDUCATION & WELFARE
OFFICE OF EDUCATION

Document Number 70706-S-BC-R-23

Printed November, 1969

THIS DOCUMENT HAS BEEN REPRODUCED EXACTLY AS RECEIVED FROM THE PERSON OR ORGANIZATION ORIGINATING IT. POINTS OF VIEW OR OPINIONS STATED DO NOT NECESSARILY REPRESENT OFFICIAL OFFICE OF EDUCATION POSITION OR POLICY.

The Effects of Mothers' Presence and Previsits on Children's Emotional Reactions to Starting Nursery School

Conrad Schwartz

(Syracuse)

The research or work reported herein was performed pursuant to a contract with the Office of Education, U. S. Department of Health, Education, and Welfare through the Syracuse Center for Research and Development in Early Childhood Education, a component of the National Laboratory on Early Childhood Education, contract OEC-3-7-70706-3118.

Contractors undertaking such work under Government sponsorship are encouraged to express freely their professional judgment in the conduct of the work. Points of view or opinions stated do not, therefore, necessarily represent official Office of Education position or policy.

PS 002704

THE EFFECTS OF MOTHERS' PRESENCE AND PREVISITS ON CHILDREN'S EMOTIONAL REACTIONS TO STARTING NURSERY SCHOOL

Conrad Schwartz

A recent search of the literature revealed a dearth of research examining the efficacy of current practices designed to help the young child adjust to entering nursery school. In most nursery schools these procedures constitute a firmly entrenched and well defined program. Although specific practices may have evolved as pragmatic solutions to problems their continuation in present forms is probably the result of the academic training given to today's and yesterday's nursery school teachers. Textbooks on Nursery School Education deal at some length and in great detail with this subject. Although many cultural changes have occured in the last thirty years, these practices have not been reexamined or modified, rather they rest on their original theoretical bases.

The procedures most generally used to introduce the school experience to young children fall into four major categories; visits prior to the beginning of school, school attendance with the mother present, school attendance for shortened sessions, and school attendance with only part of the total group. These practices may be arranged in a variety of programs of differing duration either in series or combinations. The purpose of all this is to provide the child with the

opportunity to gradually become familiar with a novel environment and to enter into a familiar relationship with the teacher. Visits prior to the first day of school may take either of two forms. The child accompanied by his mother may visit the school when other children are not present. Without the competition of other children, he has a chance to explore the school room, to become familiar with the equipment, and to meet the teacher. This solution seems to favor familiarization with the physical environment. A previsit that most strongly fosters the formation of an interpersonal relationship occurs when the teacher pays a visit to the child in his home. There, they have a chance to become acquainted in an environment where the child feels most comfortable, and it is hoped that this will assist the child in beginning school.

Following the visit, the next step is for the child to attend school when class is in session. This may occur with his mother present. Textbooks explain that most children will need their mothers with them for a few days until they feel comfortable in school with the teacher, because a relationship between the child and the teacher must be established before the child can separate from his mother and successfully stay in school by himself. The role of the teacher is stressed in helping both the child and the mother prepare for this separation (see Read, 1966).

Reducing the size of the group is also suggested as an important factor in providing a comfortable introduction to school. The teacher is more available, which facilitates the establishment of this relationship, and with fewer children there are also fewer novel stimuli with which the child must cope. The length of time a child should stay for the initial sessions is also considered in textbooks on nursery school. It is pointed out that an environment as stimulating as the nursery school is fatiguing for most children and that the child needs to be protected from fatigue. A series of steps is suggested with the child attending school for increasingly longer periods until he is staying for the full session.

Since the procedures for introducing the young child into the nursery school situation are based on theory rather than controlled empirical investigation, this study was undertaken in the hope of proving an empirical basis for the choice of methods.

The practices chosen for investigation were the effects of a previsit to the nursery school classroom prior to the start of classes and the effects of the presence of the mother in the classroom for part of the first class session. The presence or absence of these two conditions were combined factorially with a third factor, the previous experience of the child in group settings with age mates outside of the home. Experienced and inexperienced children started nursery

school under one of the following four circumstances: (a) after a previsit with the mother present for the first twenty minutes, (b) without a previsit but with the mother present, (c) with a previsit but without the mother present in the classroom, and (d) without a previsit and without the mother present in the classroom. Several measures of the child's emotional reaction to nursery school were obtained during the initial session and at the follow-up intervals. No explicit predictions of the effects of the treatment combinations were made; however, several are implied from current nursery school practice. One would expect that the effects of the mother's presence and the previsit would be facilitatory and additive, i.e., both factors would reduce adverse reactions to beginning nursery school. Furthermore, the positive effects should be greater for the child who has had the least experience with situations similar to the nursery school; that is, situations where there are a number of other children, an adult other than the mother, and physical surroundings less familiar than home.

Method

Subjects

The subjects for this study were the 108 children enrolled in the Laboratory Nursery School at Liverpool, New York. The school

consists of three morning and three afternoon classes of 18 pupils. The pupils ranged in age from 3 1/2 to 5 years. Each class is staffed by a head teacher, an assistant teacher, and a student teacher, all under the general direction of the supervisor of the Nursery School. The Nursery School accepts, on a volunteer basis, children who will be entering kindergarten in the following year. The population from which pupils are drawn is predominately middle class. Pupils are admitted to the preschool program in the order of date of application and on the basis of availability for placement in morning or afternoon classes.

Design

The total sample of children granted admission for the morning and the afternoon classes was subdivided on the basis of prior group experience, as reported by the mother on a pre-admission inventory. The experienced subgroup consisted of those children who had had interaction with a group of three or more children in the absence of the mother for at least one hour once a week for one month. Children who had not had this minimun group experience were classified as inexperienced. Within the morning and afternoon groups a four fold classification of pupils according to sex and experience status was made. From each of the four

ED 062704

combinations of sex and experience, children were randomly assigned to the three classes in the morning and in the afternoon. As a result of this assignment each class consisted of four subgroups of at least four pupils, one from each of the four combinations of sex and experience, and a total of 18 pupils per class, equally divided according to sex and experience status. Striving to maintain a completely balanced and crossed design, the four children in each subgroup of sex and experience were randomly assigned to the four combinations of two bi-level treatment factors. One treatment factor, previsit, was the occurrence or non-occurrence of a twenty minute previsit by the mother and child to the nursery school (No Previsit vs. Previsit). The other treatment factor, Mother Presence, was the presence or absence of the mother in the classroom during the first twenty minutes of the first day of class. (Mother Present and Mother Absent). The treatment conditions will be explained in more detail below. In summary, the design was a four-factorial analysis of variance design including the following factors: Previsit vs. No Previsit; Mother Present vs. Mother Absent; Experiences vs. No Experience; and Male vs. Female. One pupil from each of the six classes was originally assigned to each of the 16 cells representing the treatment combinations with additional pupils in some cells.

Procedure

The assignment of children to classes balanced by sex and experience and the assignment to experimental treatment conditions was completed two weeks before the start of classes. Included in a brochure describing the preschool program and mailed to each family was the following statement:

> This year the Liverpool Laboratory Nursery School will study how children react to the beginning of school. Several different procedures will be used to introduce the children to the school situation. We will be inviting some of the parents and their children to make preliminary visits to the school. If you are to be one of those to make such a visit, your child's teacher will call you to arrange a mutually convenient time.

Previsit. The head teacher in each class telephoned the mothers of the children in her class who were assigned to the previsit condition, and scheduled an individual appointment for the previsit. Previsits were scheduled during the week preceding the first day of class and consisted of a twenty minute period during which the mother, child, and teacher were the only individuals in the classroom. Teachers were instructed to encourage the child to freely explore the classroom while they devoted their attention primarily to the mother whom they interviewed about the child's behavior. Mothers in the No Previsit Condition were not contacted for the interview until after the start of school.

A week before the start of classes all mothers received a letter containing a class assignment for the child, information about the class meeting time on the first and second Mondays, which deviated from the regular meeting times, and instructions to the mother concerning her role for the first day of class. On those days the regular morning and afternoon class sessions which usually lasted 2 1/2 hours were divided into two one-hour sessions. Mothers of children assigned to the Mother Present Condition arrived between 8:45 and 9:00 a.m., if the child was in a morning class, and between 2:00 and 2:15, if the child was in an afternoon class. Mothers of children assigned to the Mother Absent Condition arrived between 10:15 and 10:30 for morning classes and between 12:30 and 12:45 for afternoon classes. Thus, on the first day of class the class size was nine pupils or one-half of the normal size. This accomplished two purposes: children in the classroom at any one time were all exposed to the same condition with regard to the presence or absence of the mother, and secondly, the reduction in class size facilitated observation of the behavior of individual children.

Mother Present. Mothers whose children were in the Mother Present Condition were instructed by letter as follows:

> Upon arrival for the first half-session, the teacher will greet you and your child at the door of

> the classroom and invite both of you to come in. We would like to have all of the mothers in your child's class plan to remain in the classroom with their children for about 20 minutes. At the appropriate time, the teacher will ask you to leave the classroom and to observe from the hallway. If the teacher finds that your child needs your presence, she will look for you there.

Mothers were not given special instructions as to their behavior in the classroom with the child. Teachers were told to have free play while mothers were in the room but otherwise were instructed to conduct their classes in the usual fashion. The student teacher present in the classroom noted the time of arrival of each mother and child and notified the head or assistant teacher at the time appropriate for the departure of each mother (twenty minutes after arrival). When notified by the student teacher of the departure time of a mother, the head teacher addressed the mother saying, "Please tell your child that you have to leave now." The student teacher recorded the type of initial communication used by the mother to inform the child of her departure and rated the child's reaction to separation from the mother. These ratings are described below.

Mother Absent. Mothers whose children were in the Mother Absent Condition were instructed by letter as follows:

> Upon arrival for each class meeting, including the first, we would like to have all of the mothers in your

> child's class plan to leave their children with the teacher at the door of the classroom. She will be there to greet you. You may observe from the hallway outside of the classroom. If the teacher finds that your child needs your presence, she will look for you there.

To facilitate observation of the child's reaction to separation, parents waited in the hall outside of the class until they could be attended individually by the head or the assistant teacher. The teacher introduced herself to the mother and child in their order of arrival and invited the mother into the classroom to see where the child would hang her coat. Once done, the teacher addressed the mother saying, "Please tell your child that you have to leave now." The student teacher rated the child's reaction to separation.

In both the Mother Present and Mother Absent Condition, if the child resisted the mother's departure from the room, the teacher was free to give whatever help she deemed appropriate. If a child strongly resisted the mother's departure, to avoid disrupting the class, the mother and the child left the classroom for a smaller private room where the mother tried to work out the problem. The mother was encouraged to reintroduce the child into the classroom when she felt he might accept her absence. If unsuccessful, she could return the next day and stay in the classroom longer.

In all classrooms at all sessions the first day of class began with twenty minutes of free play followed by twenty minutes of an activity

selected by the teacher. The last twenty minutes consisted of free play. In order to permit recovery from the separation which seemed at different times in the Mother Present and the Mother Absent Conditions, other ratings of emotional adjustment to the classroom situation were not made until the last twenty minutes of the session, and occured at the same relative time and in like fashion at each class session.

The student teacher assigned to each room rated two variables: the child's reaction to separation (mentioned above) and a time sampled record of the child's locus relative to teachers and peers and his activity during the last twenty minutes of the session, from which a measure of classroom adjustment was derived. Also during the last twenty minutes ratings of motility were obtained by having each mother observe her child through a one-way window and count his foot steps at periodic intervals. In the last five minutes of the session both the teacher and assistant teacher independently rated each child on a 5-point scale of comfort in the classroom situation. These observational methods will be described in greater detail below.

Follow-up Sessions. As a check on the permanence of any effects produced by the experimental treatment conditions, follow-up measures on all variables were conducted one week later. Following

the initial Monday session all classes met in regular 2 1/2 hour sessions with 18 in a group on Tuesday, Thursday, and Friday. The classes met once again in half-sessions of nine children each on the second Monday. As before, mothers were asked to bring their children so that ratings of the separation could be made. In this case all children were left at the door, that is, no mothers stayed in the classroom. During the first forty minutes of the class period mothers completed a questionnaire concerning their child's attitudes toward nursery school. In the last twenty minutes of the session mothers rated their child's motility and the student teacher recorded types of activity. In the last five minutes, the teachers rated each child's comfort. Thus, the observations made of the children the second Monday were a repeat of those made on the first Monday.

Finally, four weeks later the head teacher and the assistant teacher made a consensus rating of each child's comfort in the classroom and his ease of separation from the mother.

Measurements of Emotional Reaction

First, the two types of observation made by the student teachers will be described.

Separation Reaction. The following scale was used by student teachers to rate each child's reaction to separation from the mother

just after she announced her departure:

1. No objection to mother's leaving. No discomfort. Goes immediately to play or explore, or if playing, does not interrupt play.

2. No objection to mother's leaving, but mild apprehension. Watches her leave. Briefly interrupts former activity.

3. Brief verbal and/or nonverbal appeal for reassurance. E.g., "Where are you going?" "When are we going home?"

   Follows mother closely to the door. Holds her hand. Stays alone after <u>single</u> reassurance.

4. Verbal and/or nonverbal objection to mother's leaving. E.g., "Don't go." "I want to go too." "I don't want to stay alone."

   Holds mother back. Tries to follow mother out the door. Stays alone after <u>single</u> reassurance.

5. Repeated or prolonged objections to mother's leaving. Stays or permits mother to leave only after <u>repeated</u> reassurance.

6. Will not stay alone or will not permit mother to leave. Cannot be convinced by mother or teacher.

   In addition to the numerical rating, indicate with "Yes" or "No" whether the child cried upon separation or shortly thereafter and the approximate crying time in minutes.

<u>Position-Action</u>. Every five minutes during the last twenty minutes of the session the student teacher coded each child's position and activity relative to others. Three categories of position were used: "Alone" was scored if the child was separated from teachers

and peers by more than five feet; "Peer" was scored for a child within five feet of another child and oriented toward the child rather than a teacher by their own choice; and "Teacher" was scored if the child was within five feet of a teacher and oriented toward the teacher rather than a peer by their own choice. Three categories of action were used: "Passive" was scored if the child was relatively inactive and immobile, exhibiting no play and no conversation. The child could be standing, seated or moving very slowly. He could be rocking, sucking fingers, pouting, crying or passively watching and still be scored in this category. "Interactive" was scored if the child was speaking, touching, fighting, or playing with another person or playing with or at the same toy. "Active" was scored if the child was walking, running, moving or playing with toys, or intently examining an object or a picture. Each of the nine possible combinations of the three position and activity categories was assigned a numerical weight which in the authors' judgment reflected the degree of classroom adjustment signified by the behavior. For example, a child who was alone and passive was given the highest rating. The weights were summed across the four observations for each child to get the Position-Action score of adjustment.

The student teachers working in pairs, practiced rating Separation Reaction on children arriving for classes at a nursery school in the vicinity of the university. In a similar manner they practiced the time sampled Position-Action rating on children in the nursery school before using the method in this experiment. Disagreements were discussed with each other and with the first experimenter until clarification and uniform interpretation was achieved among all raters.

Motility. A study with preschool children (Schwarz, 1969) suggested that motility or locomotion in the environment may be positively related to the security of the individual. Therefore, ratings of motility were obtained for each child as another index of adjustment to the classroom situation. During the second twenty minutes of the first class session parents were trained by experimental assistants to rate the motility of their own child. Each classroom was equipped with a one-way window which could accommodate five or six raters. Since there were nine children in each class the training was conducted first by example and then by relays of paired practice ratings. The unite of measurement was the child's footstep. The nine mothers at each classroom observation window were divided into two platoons. First one platoon practiced counting footsteps in pairs to check reliability and agreement, and then the other platoon practiced. During the

last twenty minutes of the session each mother counted her child's footsteps for three two-minute periods separated by three minute rest intervals. The motility score was the total number of footsteps during the three time samples.

Affect. When mothers returned with their children for the first follow-up session they were asked to rate their child's feeling toward nursery school for the day after the first class meeting and for the day of the follow-up session. The following scale categories were provided for this purpose (the numbers indicate the scale values assigned to each Affect category):

__6__ delighted, eager, elated

__5__ pleased, somewhat happy

__4__ indifferent, unconcerned, or ambivalent (pleased but tense or nervous)

__3__ mildly apprehensive, a little nervous

__2__ frightened, or somewhat resistive

__1__ terrified or strongly resistive

Comfort. The following scale was used by the head teacher and the assistant teacher to rate the Comfort of each child in the class:

1. a) Some crying and distressed facial expression
   b) No playing with toys
   c) No verbalizations or comments except expressions related to leaving the room, mommy, etc.
   d) Tends to remain away from other children and teachers

2. a) Despondent or frightened facial expression, perhaps a little crying
   b) Little or no playing with toys
   c) Little or no conversation or comments
   d) May spend part of time with other children but little interaction

3. a) Watchful (but not tearful, despondent or frightened) facial expression
   b) Plays with toys but somewhat cautiously, timidly and with some hesitation (especially at first)
   c) Few comments or verbalization
   d) Plays near other children but with little direct interaction

4. a) Relaxed facial expression
   b) Active toy play during most of the session (possibly some hesitation initially)
   c) Some conversation and comment
   d) Plays near other children: frequent interaction with children and/or teachers

5. a) Smiling (cheery) facial expression
   b) Active toy play with no hesitation
   c) Engaged in frequent conversation and comment
   d) Extensive interaction with other children and/or teachers

The experimenter met with all teachers in advance of the first session to explain the scale and discuss its application. The teachers were instructed to make their ratings completely independent of one another and to rate only the degree of comfort directly observed in the session for which ratings were being made. Each child's score was the average of the rating made by the head teacher and the assistant teacher. These ratings were made during the last five minutes of the initial session and the follow-up session. The ratings of head and assistant teachers were found to correlate .51 ($df = 98$, $p < .01$).

Table 1
Means, Standard Deviations, and Intercorrelations for Five Measures of Emotional Reaction to Beginning Nursery School

Emotional Reaction Measure	Correlations							
	A-2	Com.-3	Aff.-4	Mot.-5	N	Mean	SD	Range
Section A: Initial Session								
1. Separation-Reaction	-.09	-.49**	-.32**	-.18	97	1.70	1.32	6 - 1
2. Activity-Position		.47**	.26**	-.04	92	23.25	5.25	7 - 32
3. Comfort			.46**	.14	96	3.92	.80	1 - 5
4. Affect				-.05	96	6.19	1.18	1 - 7
5. Motility					94	106.15	73.98	1 - 380
Section B: Follow-up								
1. Separation-Reaction	-.39**	-.39**	-.34**	-.20	86	.89	.87	5 - 0
2. Activity-Position		.50**	.16	.20	86	24.01	4.69	8 - 32
3. Comfort			.20	.22*	86	4.24	.67	2 - 5
4. Affect				.03	96	6.29	1.24	1 - 7
5. Motility					82	92.122	68.30	6 - 340

*$p < .05$

**$p < .01$

Results

The first section of the results concerns the interrelationships among five measures of emotional reaction to beginning nursery school, the dependent variables in this experiment. Since these measures were developed for use in this study, a discussion of the evidence for their validity will be presented before the results of the experimental portion of this investigation.

Validity of Measures of Emotional Reaction to Starting Nursery School.

The means, standard deviations, and intercorrelations for five measures of emotional reactivity may be found in Table 1. Section A of Table 1 presents data from the first session of nursery school; Section B presents data from the first follow-up session held one week later. High ratings for Separation Reaction indicate an adverse reaction, while high scores on the other four measures indicate a positive emotional reaction. With regard to the data from the first session, the Motility rating failed to correlate significantly with any other measure. The other four measures, Separation Reaction, Activity-Position, Comfort, and Affect, with one exception, were mutually intercorrelated at statistically significant levels. The teachers' rating of Comfort had the highest correlation with the other three ratings. Because of this evidence of convergent validity, the teachers' rating of comfort was considered the best overall index of emotional reaction

to beginning nursery school. The correlation of .46 between the teachers' rating of Comfort and the mothers' Affect rating is noteworthy: considering the modest inter-rater reliability (.51) for the teachers' rating of Comfort and the possible effect of social-desirability set upon mothers' ratings, this moderate correlation suggests that both scores reflect a similar dimension even though the mothers were asked to rate a markedly different sample of behavior, i.e., the child's feelings toward Nursery School on the day after the first session. The teachers' rating of Comfort also correlated .47 with the Activity-Position score derived from the student teachers' and the mothers' ratings of emotional reactivity may have been influenced by the child's initial reaction to separation, since both were correlated with the Separation-Reaction rating, whereas Activity-Position, a measure based exclusively on behavior in the last twenty minutes of the session, did not correlate with the Separation rating. The lack of relationship between Separation Reaction and Activity-Position was probably due to real change in children's emotional states from the time of the mother's departure until the time of the Activity-Position rating.

Section B of Table 1 presents the matrix of intercorrelations of the measures of emotional reactivity obtained at the first follow-up

session, one week after the start of school. Approximately the same pattern of relationships can be observed as was found in the first session. The correlations of the Mobility score were a bit higher in the second session, and the correlation of Mobility with Comfort was significant at the .05 level. Mobility scores were probably adversely affected by the variation from classroom to classroom in teacher behavior and in the activities initiated by the children themselves. In this setting motility seems to have been a rather poor index of emotional reaction to nursery school. The higher correlation between Separation-Reaction and Activity-Position in the follow-up session than in the initial session may be due to greater stability of behavior after the initial adjustment. Those children who after a week of school were still reacting emotionally to the mother's departure may have had a generally poor adjustment which was reflected in all of the ratings of emotional reactivity. However, on the first day, basically well adjusted children may have been momentarily disturbed by the mother's departure.

Again, in the follow-up session, the teachers' rating of Comfort had the highest correlations with the other indices of emotional reaction.

Table 2
Means and Standard Deviations of Measures of Emotional Reaction to the Initial Session as a Function of Previous Group Experience and Treatment Combination

Measure of Emotional Reaction		No Experience				Experience			
		Mother Absent		Mother Present		Mother Absent		Mother Present	
		No Visit	Visit	No Visit	Visit	No Visit	Visit	No Visit	Visit
Separation-Reaction	M	2.83	1.83	1.43	2.38	1.17	1.10	1.25	1.50
	SD	2.04	1.53	.76	1.89	.39	.31	.45	.90
	N	(12)	(12)	(14)	(13)	(12)	(10)	(12)	(12)
Activity-Position	M	23.4	23.9	21.1	24.2	21.4	22.2	26.25	23.83
	SD	5.7	4.2	5.5	5.7	5.5	5.6	4.29	4.88
	N	(11)	(11)	(14)	(12)	(12)	(10)	(12)	(12)
Comfort	M	3.75	3.75	3.46	4.17	4.08	4.05	4.12	4.08
	SD	1.10	1.10	.60	.86	.67	.64	.60	.51
	N	(12)	(12)	(14)	(12)	(12)	(10)	(12)	(12)
Affect	M	6.00	5.75	6.00	6.08	6.33	6.11	6.33	6.92
	SD	1.28	1.86	1.30	1.50	.78	.78	.65	.29
	N	(12)	(12)	(14)	(13)	(12)	(9)	(12)	(12)
Motility	M	91.9	109.9	121.2	112.6	126.7	82.8	77.1	122.8
	SD	70.3	64.1	103.9	87.8	74.6	60.7	52.9	57.9
	N	(11)	(11)	(14)	(12)	(11)	(10)	(12)	(11)

Table 3

Summary of Analyses of Variance of Measures of Emotional Reaction to the First Session of Nursery School

Source	Measures of Emotional Reaction								
	Separate Reaction			Activity-Position			Comfort		
	df	MS	F	df	MS	F	df	MS	F
Mother Present (M)	1	.21	<1	1	29.54	1.07	1	.06	<1
Previsit (V)	1	.03	<1	1	5.46	<1.28	1	.59	<1
Experience	1	18.04	11.83**	1	1.82	<1	1	2.18	3.49
V X M	1	7.77	5.10*	1	.76	<1	1	.72	1.15
V X E	1	.08	<1	1	39.42	1.46	1	.90	1.44
M X E	1	2.69	1.76	1	103.50	3.82	1	.00	<1
V X M X E	1	4.04	2.65	1	46.96	1.74	1	.75	1.20
Error	89	1.25		86	27.06		88	.63	

* $p < .05$

** $p < .01$

Table 3 (Cont.)

Summary of Analyses of Variance of Measures of Emotional Reaction to the First Session of Nursery School

Source	Affect			Motility		
	df	MS	F	df	MS	F
Mother Present (M)	1	1.90	1.36	1	712.1	<1
Previsit (V)	1	.05	<1	1	178.0	<1
Experience (E)	1	5.16	3.71	1	977.2	<1
V X M	1	1.90	1.36	1	5661.6	1.02
V X E	1	.42	<1	1	81.5	<1
M X E	1	.34	<1	1	2466.7	<1
V X M X E	1	.34	<1	1	19272.4	3.45
Error	88	1.39		84	5580.3	

Experimental Treatment Effects Upon Measures of Emotional Reaction

Preliminary analyses of the data from the five measures of emotional reaction to the nursery school were made separately for the experienced and inexperienced groups in a three-way analysis of variance design corrected for unequal cell size by the method of unweighted means. The factors incorporated in these analyses were the following: Sex (male vs. female), Mother Present (vs. Mother Absent during the first twenty minutes of school), and Previsit (vs. no Previsit). Since neither significant main effects nor interactions were found for the Sex factor on any of the five variables, the sexes were combined and the Experience factor replaced the Sex factor in the analyses presented here. The means and standard deviations of all measures of emotional reaction to the initial session of nursery school are presented in Table 2 as a function of previous group experience and treatment combination. The original design called for six males and six females in each cell, however, a few subjects were lost from the analysis because they appeared for the wrong session or failed to appear at all. A subject was lost here and there because ratings were missed. Nonetheless, sex is still fairly well balanced within cells on all variables. The summaries of the analyses of variance of the emotional reaction variables are presented in Table 3.

Separation-Reaction. The first rating of the child's emotional reaction to beginning nursery school was the rating of the child's reaction to separation from the mother which occurred just after arrival in the Mother Absent Condition and twenty minutes after arrival in the Mother Present Condition. Of the 100 children observed only six children cried at the departure of the mother and three of these six cried for longer than one minute. The other three children were removed from the classroom to a private room with the mother. Sixty-eight of the children received ratings of one indicating no discomfort at the departure of the mother. The cell means for Separation-Reaction ratings may be found in Table 2 and the summary of the analysis of variance in Table 3. There was a main effect for Experience significant at the .01 level of confidence. Examination of the means in Table 2 revealed that children in the No Experience Group had higher ratings on Separation-Reaction than children in the Experience Group. This mean difference, although highly significant, is not very large. Since the standard deviations tend to be larger in the No Experience Group, it would appear that a small number of children in this condition are reacting adversely to the mother's departure while others are as unconcerned as the children in the

experienced group. Congruent with this interpretation, the six children who cried, and hence received Separation-Reaction ratings of six, were all in the No Experience Group, whereas no child in the Experience Group cried.

With the Separation-Reaction variable there was also a significant interaction between the Mother Present and the Previsit factors ($p < .05$). Examination of the means for the four treatment combinations indicated that children in the two combinations, Mother Present-Previsit and Mother Absent-No Previsit, tended to react more adversely to the mothers departure than children in the other two treatment combinations, Mother Present-No Previsit and Mother Absent-Previsit. The overall effect of the mother's presence or absence did not approach significance nor did the overall effect of the occurrence or nonoccurence of a previsit. No other interaction was significant. The six inexperienced children who cried were distributed among three of the four experimental treatment combinations: three, two males and one female were in the Mother Present-Previsit combination; one male was in the Mother Absent-Previsit combination; and two females were in the Mother Absent-No Previsit combination. Thus, the methods of starting nursery school under investigation do not seem to be related to the occurrence of crying at separation from the

mother, and their relationship to milder degrees of disturbance at the departure of the mother, although significant, is not especially strong nor easily interpreted.

Activity-Position, Comfort, Affect, and Motility. The findings with the other measures of emotional reaction in the initial session of nursery school can be very easily summarized. As can be seen in Table 3 none of the main effects or interactions were significant at the .05 level for the Activity-Position, Comfort, Affect, or Motility measure of emotional reaction. On two of these measures, the teachers' rating of Comfort and the mothers' rating of Affect, there was a trend toward a main effect of Experience ($p < .10$) which parallels the significant finding with the Separation-Reaction measure. As with the Separation-Reaction rating, most subjects received ratings for Comfort and Affect which indicated an absence of distress. It would appear that the experimental treatment variables had no significant effect on a child by the last twenty minutes of the first session, the time period to which these four measures most directly apply. Even the effect of prior group experience which significantly influenced the Separation-Reaction earlier in the session appears to have lost its effect on emotional reaction by the end of the first one hour session.

Follow-up sessions. The five measures of emotional reactivity were repeated at a follow-up session one week after the initial session. These data were analyzed in the same fashion as those from the initial session. Although mothers were instructed to bring their child to the classroom, nearly a quarter of the children appeared at the class without their mothers, thus preventing observation of the Separation-Reaction. A zero rating was assigned to such children. The three-way analysis of variance of the Separation-Reaction ratings yielded no significant main effects or interactions. Thus, the effect of prior group experience on separation from the mother which was observable on the first day of class was not in evidence in the one-week follow-up, nor were there significant effects of the treatment combinations. As in the initial session, the analyses of Activity-Position, Comfort, Affect, and Motility ratings from the follow-up session yielded no significant main effects or interactions.

Five weeks after the initial session the head teacher and assistant teachers completed concensus ratings of Separation-Reaction and Comfort for all children in their class. The three-factorial analysis of variance of these scores also yielded no significant effects.

Thus, it may be concluded from the follow-up studies that whatever effect these methods of starting nursery school may have on the child's emotional reaction on the first day of class, no effects are detectable one week later. Also, the benefits of prior group experience are no longer apparent by the second week.

Discussion

It is quite clear from the results of this study that neither a previsit to the nursery school nor the presence of the mother in the classroom for part of the first session had the anticipated effect of facilitating the child's emotional adjustment to the nursery school setting. The large majority of children in this sample made a very rapid and uneventful adaptation to the nursery setting. The obvious failures of intermediate adaption, those six children who cried, were not systematically associated with the methods of introducing the child to the nursery setting, in fact, three of them occurred in the combination of treatments which, theoretically should lead to the least distress, i.e., Mother Present and Previsit. The significant interaction of the Mother Present factor with the Previsit factor on the ratings of Separation-Reaction suggests that this particular combination of procedures may prolong or reactivate dependency feelings in both experienced

and inexperienced children. However, such effects are ephemeral: they were not detectable in ratings of emotional reaction made at the end of the first session nor were they reflected in the mothers' ratings of the child's feeling toward nursery school on the day after the initial session.

As one would expect, those children who had had prior group experience on a regular basis outside of the home were less apprehensive about the mother's departure, irrespective of the method of introduction to the nursery school setting. Even this difference in emotional reaction to starting school was not statistically significant on measures taken in the last twenty minutes of the first session and the effect on separation reaction was not evident in the follow-up sessions. What these results suggest is that most children in this middle class population readily adapt themselves to the nursery school situation without special procedures for making the transition more gradual, and that two of the procedures traditionally used to facilitate this transition, previsits and the presence of the mother, are not especially helpful for those who have adverse reactions to nursery school.

The fact that four of the five measures of emotional reaction were moderately correlated with one another provided evidence of their mutual validity. It also indicated that there were individual

differences in emotional reaction which could be detected from diverse samples of behavior. These individual differences may be related to stable personality characteristics which are not easily influenced by adaptation and modification of the methods by which the child is introduced to the nursery setting. Of course, no firm conclusions can be made about procedures which have not been tested. It is encouraging to note that in this sample, of the 24 children who were simply left at the door by their mothers without a previsit and without prior introduction to the teacher or the classroom, only two were so greatly distressed that they cried at the mother's departure. The overall results would lead one to conclude that their behavior would have been no different if they had been in a different treatment condition.

All of the treatment combinations did incorporate procedures which have been traditionally used to ease the transition to nursery school. The class session was less than half of the regular class session, half the number of children in regular class were present (9 vs. 18), and all of the mothers remained in the building throughout the session. Since no variations occurred in these procedures, the extent to which they facilitated the child's adaptation is unknown. In future studies we hope to test experimentally the effects of initial class size on emotional reactions to beginning nursery school.

It seems important to note that these results may not be applicable to all nursery school populations. Perhaps younger children or those from culturally disadvantaged areas would receive considerable benefit from these procedures even though they had little or no effect on this sample. These children were a little above average in I. Q. and their parents had sought to enroll them in the nursery school program without special proding or inducement. They also seemed to convey to the child a sense of enthusiasm about the educational process. Reports from the mothers indicate that, on the average, they speak to the child 10 or 20 times about starting nursery school before the first day of class. Even television provides todays youngsters with appropriate role models for nursery school behavior through programs such as Ding Dong School. On the other hand, Jane Kessler found that mildly retarded children from two to four years-of-age were aided in their transition to the nursery school setting by the presence of the mother in the classroom (Kessler, Gridth, and Smith, 1968). She attributed their stronger separation anxiety to an impaired ability to deal symbolically with the concept of physical separation from the mother. As children increase in age they appear to derive less direct distress inhibition from the presence of the mother. (Schwarz, 1968) Such evidence supports the need

for replication of this type of experiment on diverse populations prior to a general statement about the efficacy of those procedures for introducing children to the nursery school situation.

References

Kessler, Jane W., Gridth, A., and Smith, Edith. Separation reactions in young, mildly retarded children. Paper presented to the American Orthopsychiatric Association Convention, 1968.

Read, Katherine H. The Nursery School: A Human-Relationships Laboratory. Philadelphia. W. B. Saunders Co., 1966.

Schwarz, J. C. Fear and Attachment in Young Children. Merrill-Palmer Quarterly of Behavior and Development, 1968, 14, 313-322.

Schwarz, J. C. Presence of an Attached Peer and Security in a Novel Environment. Paper presented at the meeting of the Society for Research in Child Development, March, 1968, Santa Monica, California.